

## ELECTRIC LEAKAGE PROTECTION PLUG

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## Abstract of JP2003059388

**PROBLEM TO BE SOLVED:** To prevent burnout accident of equipment when a voltage higher than predetermined is supplied to load equipment through an electric leakage protection plug.

**SOLUTION:** Elements such as a Zener diode that conducts when a voltage higher than a predetermined is applied are connected in parallel with a test switch 7a of an operation confirmation test circuit 7 of the leakage protection plug as a pseudo earth leakage circuit 8. For example, when a leakage protection plug for 100 v appliance is connected to a 200 v plug outlet, the pseudo earth leakage circuit 8 conducts applied with high voltage and the pseudo earth leakage current runs to the test circuit 16 in the same manner as a test switch 7a is pressed. Hence, the pseudo earth leakage current is detected by a zero-phase inverter 3 and the leakage protection plug trips to cut the electrical supply to the load equipment and prevents it from burning-out.

